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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Appln. of: Michael A. Schmidt et al.Appln. No.: 10/027,467Filed: December 20, 2001For: Automatic Sheet Threading and Cutting  
Device and MethodExaminer: Ghassem AlieArt Unit: 3724Attorney Docket No: 659/793

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

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Total		Minus			x \$25=			x \$50=	
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First Presentation of Multiple Dep. Claim					+\$180=			+\$360=	
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☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

*Amanda M. Miller*  
 Amanda M. Miller (Church) (Reg. No. 52,469)

January 5, 2006  
 Date

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Our Case No. 659/793  
K-C Ref. No. 16071

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:	)	
Schmidt et al.	)	
Serial No. 10/027,467	)	Examiner Ghassem Alie
Filing Date: December 20, 2001	)	Group Art Unit No. 3724
For AUTO SHEET THREADING AND CUTTING DEVICE AND METHOD	)	

**APPEAL BRIEF**

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This Appeal is in response to the Final Rejection dated June 3, 2005 and the  
Notice of Panel Decision from Pre-Appeal Brief Review dated December 6, 2005.

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**I. REAL PARTY IN INTEREST**

It is believed that Kimberly-Clark Worldwide, Inc. is the real party of interest in this Appeal pursuant to the assignment of the above-identified application to Kimberly-Clark Worldwide, Inc. executed by each of the three (3) inventors of record, Michael A. Schmidt, Paul K. Pauling, and Joel A. Cowen.

**II. RELATED APPEALS AND INTERFERENCES**

The undersigned, Amanda M. Miller (Church), is not aware of any other appeals, interferences, or other judicial proceedings that may be related to, would directly affect or be directly affected or have a bearing on the Board's decision in the pending Appeal.

**III. STATUS OF CLAIMS**

The status of the claims is as follows:

Claims 14-16, 20, and 22 are finally rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,082,659 (hereinafter "Sankaran") in view of U.S. Patent No. 5,024,128 (hereinafter "Campbell").

Claims 17 and 18 are finally rejected under 35 U.S.C. §103(a) as being obvious over Sankaran in view of Campbell, and further in view of U.S. Patent No. 5,588,644 (hereinafter Lotto).

Claims 19 and 21 are finally rejected under 35 U.S.C. §103(a) as being obvious over Sankaran, Campbell, and further in view of U.S. Patent No. 3,817,467 (hereinafter Dambroth).

Claims 1-13 and 23-34 are withdrawn from consideration for being directed to a non-elected invention.

The above mentioned rejections of claims 14-22 are the subject of this Appeal.

#### **IV. STATUS OF AMENDMENTS**

A Request for Reconsideration was filed on August 3, 2005 after a Final Rejection. An Advisory Opinion was issued on August 23, 2005 which indicated that the Request for Reconsideration was entered. The Advisory Opinion maintained the above recited rejections. A Pre-Appeal Brief was submitted to the Patent Office on November 3, 2005, but contained no amendments. Therefore, the status of the claims remains unchanged from those finally rejected on August 3, 2005.

#### **V. SUMMARY OF CLAIMED SUBJECT MATTER**

An understanding of the invention of independent claim 14 can be made upon a review of the embodiments of the invention, described below, and illustrated in the figures of the specification. Note that in the description to follow, like elements will employ identical identification numerals.

An apparatus for cutting and threading a sheet material is provided which generally includes a transfer blade having a retracted position and an extended position and a pair of nip rolls. The sheet of material passes between the retracted position of the transfer blade and the extended position of the blade and is diverted away from a processing apparatus by passing between the nip rolls. The movement of the transfer

blade from the retracted position to the extended position directs the sheet toward the processing apparatus.

The apparatus for threading and cutting a sheet material may be generally referred to as a "handling apparatus" and may be positioned between a forming machine and at least one processing apparatus. (p. 7, l. 16-17, FIG. 1). The processing apparatus may be any processing apparatus known to those skilled in the art. The processing apparatus may be, for example, a roll winder, a slitting machine, an embosser, a heat or chemical treater, a folder, a laminator, or a stitching machine. (p. 7, l. 11-14).

The handling apparatus may be operated in an automatic fashion such that, when the processing apparatus can no longer accept more sheet material, the formed sheet is separated and directed away from the first processing apparatus. (p. 6, l. 7-10). The automatically operated handling apparatus may then separate the formed sheet from the portion of the sheet that was directed away from the processing apparatus and then feed the formed sheet back to the processing apparatus. (p. 6, l. 10-14).

There is, in general, provided a sheet of material 1, issuing from a forming machine 2. (Fig. 1). The sheet is directed to a processing apparatus 3. (p. 7, l. 10-11). A handling apparatus 5 may be positioned between the forming machine 2 and the processing apparatus 3. (p. 7, l. 16-17). In one aspect, a handling apparatus includes a transfer blade, a pair of nip rolls, and optionally a deflector and an idler nip roll. (Figs. 11-13, p. 10, l. 26-27). Referring to Fig. 11, the formed sheet is being diverted away

from the intake area 52, passing between the nip rolls 53 and 54. The nip rolls rotate about their respective axes and may also move relative to each other. When the nip rolls converge, they pin the sheet between them. If the nip rolls are rotating at a speed greater than the speed of the sheet, they will apply a stress to the sheet. Both of the nip rolls may be capable of moving toward the sheet, or only one of the nip rolls may move to pin the sheet between the rolls. (p. 10, l. 28 to p. 11, l.2).

Referring to Figures 11 and 12, the transfer blade 55 can move into the path of the sheet from retracted position 60 to extended position 61. The impingement of the transfer blade on the sheet can break, or assist in breaking, the sheet, creating a new initial edge 56 to the formed sheet 51. Referring to Fig. 11, the motion of the transfer blade toward position 61 delivers the new initial edge toward the intake area 52. (p. 11, l. 3-8). The transfer blade contacts the sheet and delivers or directs it to the processing machine. (p. 11, l. 19-22). The impact of the blade, particularly when the sheet is in tension between the nip rolls and the idler nip, separates the sheet, and the newly formed portion is delivered to a processing apparatus or machine. (p. 11, l. 24-26).

## **VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

There are three grounds of rejection presented for review:

- 1) the rejection of claims 14-16, 20, and 22 for being obvious under 35 U.S.C. §103(a) in view of Sankaran and Campbell;
- 2) the rejection of claims 17 and 18 for being obvious under 35 U.S.C. §103(a) in view of Sankaran, Campbell, and Lotto; and

- 3) the rejection of claims 19 and 21 for being obvious under 35 U.S.C. §103(a) in view of Sankaran, Campbell, and Dambroth.

## **VII. ARGUMENT**

### **A. Claims 14-16, 20, and 22 are not obvious under 35 U.S.C. §103 over Sankaran (U.S. Patent No. 6,082,659) in view of Campbell (U.S. Patent No. 5,024,128).**

Claims 14-16, 20, and 22 were finally rejected in the Final Office Action of June 3, 2005 under 35 U.S.C. § 103 over Sankaran (U.S. Patent No. 6,082,659) in view of Campbell (U.S. Patent No. 5,024,128). The rejection of Claims 14-16, 20, and 22 is respectfully traversed. The applied references, alone or in combination, fail to provide each and every element of the claims. Specifically, neither of the cited references teaches or discloses the diversion of a sheet of material away from a processing apparatus, as recited in independent claim 14. (Applicants Response dated August 3, 2005, p. 2).

The Examiner asserts that Sankaran teaches a transfer blade having a retracted position and an extended position and a roll, and that a sheet of material passing between the retracted position and the extended position is diverted away from a processing apparatus by roll 12. (Final Office Action dated June 3, 2005, p. 4). Applicants disagree; Sankaran does not teach that a sheet of material passing between the retracted position and the extended position is diverted away from a processing apparatus.

The Examiner asserts that a sheet of material 30 passing between the retracted position and the extended position is diverted away from a processing apparatus 2, 22, 34 by the roll 12. (Final Office Action dated June 3, 2005, p. 4). Applicants submit that if elements 2, 22, and 34 of Sankaran are pieces of a processing apparatus, as suggested by the Examiner, then the processing unit, although not well illustrated by the Figures, also includes rolls 12 and 16, as well as mandrel 4. (Sankaran, Fig. 1). Therefore, the rolls are all part of the same apparatus.

In fact, Sankaran discloses the use of a "coiler" or an apparatus that winds a moving aluminum strip on a mandrel for storage. (col. 3, l. 16-18). According to

Sankaran, all parts shown are desirably mounted on a common frame 6, col. 4, l. 35-36 and 51-52, which pivots from a centerline to enable the coil 32, mounted on mandrel 4, to be moved out of the way so that coil 42 may be formed on mandrel 2. The sheet of material 30 is moved along toward roll 32. (Response dated August 3, 2005, p. 3).

After the aluminum strip has been sufficiently wound around mandrel 4, the material is severed from the coil 32 on mandrel 4 to effectively complete the wrapping of the strip 30 to mandrel 4. Once cut, the moving aluminum strip 30 is deflected onto the empty mandrel 2, not away from it. (col. 5, l. 45-46). The coiler frame 6 is presumably rotated slightly clockwise to begin wrapping the empty mandrel 2. (Fig. 2).

When the coil on mandrel 2 has reached the desired size, the knife and roller assembly are retracted and the coiler frame 6, **including mandrels 2 and 4 with rolls 10 and 12**, are rotated clockwise to again position the empty mandrel 4 to the (prior) location of mandrel 2. (col. 6, l. 14-20)(emphasis added). Therefore, the apparatus of Sankaran is actually moved from a full mandrel to an empty mandrel position, rather than the sheet changing directions from one apparatus toward a different apparatus.

In response to Applicants previous arguments, the Examiner states that "[s]heet 30 is directed away from mandrel roll 2 of the processing apparatus by roller 12." (Office Action dated June 3, 2005, p. 7). The fact that a reference may teach that a sheet may be diverted away from one portion of an apparatus to a different portion of the same apparatus does not satisfy the recitations of the instant claims. The sheet 30 is never directed away from the processing apparatus (including both mandrels 2 and 4).

Applicants claim a sheet of material passing between a retracted position and an extended position and being diverted away from a processing apparatus by passing between the nip rolls. Neither Sankaran nor Campbell, alone or in combination, teaches the claimed invention. Therefore, the Examiner has failed to establish a *prima facie* case of obviousness and this rejection should be withdrawn.

Applicants further submit that it would not have been obvious to a person of ordinary skill in the art to replace roll 12 of Sankaran's coiling apparatus with the pair of nip rolls as disclosed by Campbell. The conclusory statements presented regarding



obvious design choices of one skilled in the art are insufficient to establish a *prima facie* case of obviousness. MPEP 2143.01 states that, with reference to *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993):

A statement that modifications of the prior art to meet the claimed invention would have been “well within the ordinary skill of the art at the time the claimed invention was made” because the references relied upon teach that all aspects of the claimed invention were individually known in the art is **not sufficient** to establish a *prima facie* case of obviousness without some **objective reason to combine** the teachings of the references. [Bold emphasis added]

The Examiner has not yet provided any evidence of a motivation or suggestion to modify the Sankaran reference, either from statements within the reference or from other documentary evidence on the record. Thus, the conclusory statement of obviousness “to one of ordinary skill in the art” would be insufficient to establish a *prima facie* case of obviousness under 35 U.S.C. § 103. This is true even if a combination with another reference provided disclosure of each and every element of the claims, which they do not. For the above stated reasons, the rejections of claims 14-16, 20 and 22 are improper and should be withdrawn.

**B. Claims 17 and 18 are not obvious under 35 U.S.C. § 103 over Sankaran in view of Campbell, and further in view of Lotto et al. (U.S. Patent No. 5,588,644).**

Claims 17 and 18 were finally rejected in the Final Office Action of June 3, 2005 under 35 U.S.C. § 103 over Sankaran in view of Campbell, and further in view of Lotto et al. (U.S. Patent No. 5,588,644). First, Claims 17 and 18 depend directly from claim 14 and so are patentable over Sankaran and Campbell for at least the same reasons given above in section VII.A as to why claim 14 is patentable over the references.

As noted above with respect to claims 14-16, 20, and 22, Sankaran and Campbell, alone or in combination, do not disclose, teach or suggest the diversion of a sheet of material away from a processing apparatus. Lotto does not disclose, teach or suggest, nor has the Office Action asserted that Lotto discloses, teaches or suggests the claimed

feature. Accordingly, the Office Action fails to establish a *prima facie* case of obviousness and the rejections should be withdrawn.

Also, it should be noted that the Examiner has provided no motivation to combine or modify the cited references. As stated above, a conclusory statement does not satisfy the Examiner's burden to set forth a *prima facie* case of obviousness. On this basis alone, the rejection should be withdrawn.

**C. Claims 19 and 21 are not obvious under 35 U.S.C. § 103 over Sankaran, Campbell, and further in view of Dambroth (U.S. Patent No. 3,817,467).**

Claims 19 and 21 were finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Sankaran, Campbell, and further in view of Dambroth (U.S. Patent No. 3,817,467). First, Applicants point out that both claims 19 and 21 depend from claim 14 and therefore include the diversion of a sheet of material away from a processing apparatus. As noted above with respect to claims 14-16, 20, and 22, Sankaran and Campbell, alone or in combination, do not disclose, teach or suggest the diversion of a sheet of material away from a processing apparatus. Dambroth does not disclose, teach or suggest, nor has the Office Action asserted that Dambroth discloses, teaches or suggests the claimed feature. Accordingly, the Office Action fails to establish a *prima facie* case of obviousness and the rejections should be withdrawn.

Also, it should be noted that the Examiner has provided no motivation to combine or modify the cited references. As stated above, a conclusory statement does not satisfy the Examiner's burden to set forth a *prima facie* case of obviousness. On this basis alone, the rejection should be withdrawn.

### VIII. CONCLUSION

The cited references, either alone or in combination with the Examiner's assertions, do not provide a valid basis for a *prima facie* obviousness rejection of the present claims. Accordingly, Appellants submit that the present invention is fully patentable over Sankaran, Campbell, Lotto, and Dambroth and the Examiner's rejections should be REVERSED.

Respectfully submitted,

A handwritten signature in cursive script that reads "Amanda M. Miller". The signature is written in dark ink and is positioned above a horizontal line.

Amanda M. Miller  
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## **IX. CLAIMS APPENDIX**

1. (Withdrawn) An apparatus for cutting and threading a sheet material, comprising:

a feed roll;

a scrap roll;

a first shoe, capable of contacting a sheet of material to the scrap roll;

a second shoe; capable of contacting a sheet of material to the feed roll;

and

a knife;

wherein the knife impacts and cuts the sheet when the sheet is in contact with the scrap roll and the first shoe, and when the sheet is in contact with the feed roll and the second shoe.

2. (Withdrawn) The apparatus of claim 1, wherein the feed roll directs the sheet towards a processing apparatus.

3. (Withdrawn) The apparatus of claim 2, wherein the feed roll is a vacuum roll.

4. (Withdrawn) The apparatus of claim 1, wherein the scrap roll diverts the sheet away from a processing apparatus.

5. (Withdrawn) The apparatus of claim 4, wherein the scrap roll is a vacuum roll.

6. (Withdrawn) The apparatus of claim 1, wherein the sheet is a fibrous web.

7. (Withdrawn) The apparatus of claim 1, wherein the feed roll, scrap roll, first shoe, second shoe and knife are automatically controlled such that the sheet transfers between being directed toward the processing apparatus and being diverted away from the processing apparatus in a continuous manner.

8. (Withdrawn) An apparatus for cutting and threading a sheet material, comprising:

- a frame;
- an anvil roll; and
- a knife roll;

the anvil roll and knife roll movably mounted to the frame to provide an arcuate motion to the rolls at least between a first position and a second position;

wherein a sheet of material is directed to a processing apparatus by passing between the anvil roll and the knife roll in the first position;

the sheet of material is directed away from the processing apparatus by passing between the anvil roll and the knife roll in the second position; and

the sheet of material is cut by the convergence of the knife roll and anvil roll.

9. (Withdrawn) The apparatus of claim 8, wherein the convergence of the rolls in the second position separates the sheet into sections.

10. (Withdrawn) The apparatus of claim 8, wherein the convergence of the rolls in the second position further directs the sheet to a scrap location.

11. (Withdrawn) The apparatus of claim 8, further comprising an idler roll positioned to contact the sheet before it is directed to the processing apparatus.

12. (Withdrawn) The apparatus of claim 8, wherein the knife roll and anvil roll are automatically controlled such that the sheet transfers between being directed toward the processing apparatus and being diverted away from the processing apparatus in a continuous manner.

13. (Withdrawn) The apparatus of claim 8, wherein the sheet is a fibrous web.

14. (Original) An apparatus for cutting and threading a sheet material, comprising:

- a transfer blade having a retracted position and an extended position; and

a pair of nip rolls;

wherein a sheet of material passing between the retracted position and the extended position is diverted away from a processing apparatus by passing between the nip rolls; and

the movement of the transfer blade from the retracted position to the extended position directs the sheet toward the processing apparatus.

15. (Original) The apparatus of claim 14, wherein the sheet is broken by the movement of the transfer blade from the retracted position to the extended position.

16. (Original) The apparatus of claim 14, wherein the sheet is in contact with the nip rolls.

17. (Original) The apparatus of claim 16, wherein the sheet moves at a first speed and is broken by a stress applied to the sheet by the rotation of the nip rolls at a second speed greater than the first speed.

18. (Original) The apparatus of claim 16, wherein the sheet moves at a first speed and is broken by a stress applied to the sheet by the combination of the movement of the transfer blade from the retracted position to the extended position and the rotation of the nip rolls at a second speed greater than the first speed.

19. (Original) The apparatus of claim 14, wherein the transfer blade comprises air jets.

20. (Original) The apparatus of claim 14, further comprising an idler nip roll, wherein the idler nip roll provides tension to the sheet when the sheet is in contact with the nip rolls or the transfer blade.

21. (Original) The apparatus of claim 14, wherein the sheet is a fibrous web.

22. (Original) The apparatus of claim 14, wherein the transfer blade and nip rolls are automatically controlled such that the sheet transfers between being

directed toward the processing apparatus and being diverted away from the processing apparatus in a continuous manner.

23. (Withdrawn) An apparatus for cutting and threading a sheet material, comprising:

means for directing a sheet toward a processing apparatus;

means for cutting the sheet;

means for directing the sheet away from the processing apparatus; and

means for simultaneously cutting the sheet and directing the sheet toward the processing apparatus.

24. (Withdrawn) The apparatus of claim 23, further comprising means for cutting the sheet into sections when the sheet is directed away from the processing apparatus.

25. (Withdrawn) The apparatus of claim 23, wherein the sheet is a fibrous web.

26. (Withdrawn) A method for handling a sheet of material, comprising:  
providing a formed sheet of material;  
breaking the sheet of material to form an initial edge to the formed sheet and a scrap portion;  
directing the initial edge to a processing machine; and  
diverting the scrap portion away from the processing machine;  
wherein the breaking, directing, and diverting are automatically controlled such that the providing is a continuous process.

27. (Withdrawn) The method of claim 26, wherein the breaking, directing, and diverting are simultaneous.

28. (Withdrawn) The method of claim 26, wherein the breaking comprises impacting the sheet with a knife.

29. (Withdrawn) The method of claim 26, wherein the breaking comprises contacting the sheet between an anvil roll and a knife roll.

30. (Withdrawn) The method of claim 26, wherein the sheet moves at a first speed, and the breaking comprises applying a stress applied to the sheet by contacting the sheet between two nip rolls rotating at a second speed greater than the first speed.

31. (Withdrawn) The method of claim 26, wherein the directing comprises contacting the sheet with a feed roll.

32. (Withdrawn) The method of claim 26, wherein the sheet moves along a path away from the processing apparatus, and the directing comprises moving a transfer blade from a retracted position to an extended position through the path of the sheet.

33. (Withdrawn) The method of claim 26, wherein the diverting comprises contacting the sheet with a scrap roll.

34. (Withdrawn) The method of claim 26, wherein the diverting comprises passing the sheet between a pair of nip rolls.



**X. EVIDENCE APPENDIX**

None.

**XI. RELATED PROCEEDINGS APPENDIX**

None.